

Work Order ID 163380

Tuesday, June 27, 2017 11:35:05 AM

163380

Page 1

Item ID: D5149-041W Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Fwd Step Base Assembly Weldment
 Start Date: 7/7/2017 Start Qty: 2.00 *2*
 Required Date: 7/14/2017 Req'd Qty: 2.00 *2*
 Reference: Cust Item ID:
 Customer:

Approvals: Process Plan: DAS 21 9-89 Date: JUL 03 2017 Tooling: Date: Run Start *NR1*
 QC: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D5149	D								

110 Weld per dwg A/R Aluminum rod Batch: M134785 0.00
 110
 Large Fab Memo 1.06
 Large Fab USE DT10134 WELDING FIXTURE TO WELD D5149-041

④ ① DYC
 17/07/13
 PTO →

120 QC9- Inspect visual per QSI004- Fusion Welds 0.00
 120
 QC Memo 0.00
 Quality Control

④ ① 17.02.14 DAS 9 9-89

130 QC5- Inspect part completeness to step on W/O 0.00
 130
 QC Memo 0.04
 Quality Control

④ ① 17.02.14 DAS 9 9-89

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140 *140* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.16				(X4)	Ø		2017/07/19 BEB
150 *150* QC Quality Control	QC7-Inspect Chemical Conversion Coat Memo	0.00 0.02				4	Ø	17-07-24	DS 34 9-89
160 *160* Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum M137176 Memo START TIME: 10:40 OVEN TEMPERATURE: 200° FINISH TIME: 11:10	0.00 0.09				4	Ø	17-07-24	DS 34 9-89

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Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	QC3- Inspect Part Finish	0.00							
170									
QC	Memo	0.02				4x	4	17/07/31	DAS 15
Quality Control									
180	Wing Walk as per dwg QSI005 4.4 Batch M137442	0.00							
180									
HandFinish	Memo	0.45				4x	4	17/07/31	
Hand Finishing									
190	QC3- Inspect Part Finish	0.00							
190									
QC	Memo	0.02							
Quality Control									

DAS
30
9-89

(4)

AUG 01 2017

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200	Identify as per dwg & Stock Location: <u>GA</u>	0.00							
200					DAS				AUG 01 2017
Packaging	Memo	0.02			30	4			
Packaging	LOCATION : GA				9-89				
210	QC21- Final Inspection - Work Order Release	0.00							
210									17/8/2017
QC	Memo	0.20							
Quality Control									

DAS
21
9-89

AUG 01 2017

Picklist Print

Tuesday, June 27, 2017 11:35:03 AM

Work Order ID: 163380

163380

Parent Item: D5149-041W

D5149-041W

Parent Item Name: Fwd Step Base Assembly Weldment

Start Date: 7/7/2017

Required Date: 7/14/2017

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP REV:A 14.12.15 NEW ISSUE DD VERF;JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D5149-1		Manufactured	No			110	Each	8.0000	1	2			
										**			

OK *D5149-1*
Fwd Step Base

OK

Location	Loc Qty	Loc Code
----------	---------	----------

WA001	8	
155366	8	

D5149-3		Manufactured	No			110	Each	12.0000	1	2			
										**			

OK *D5149-3*
Fwd Step

OK

Location	Loc Qty	Loc Code
----------	---------	----------

WA001	12	
154828	4	
162831	8	

D5149-5		Manufactured	No			110	Each	14.0000	1	2			
										**			

OK *D5149-5*
Step Cap

OK

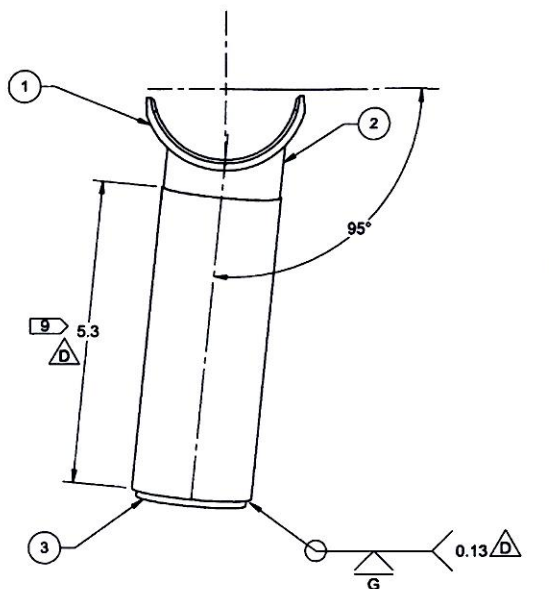
Location	Loc Qty	Loc Code
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WA001	14	
145680	4	
161881	10	

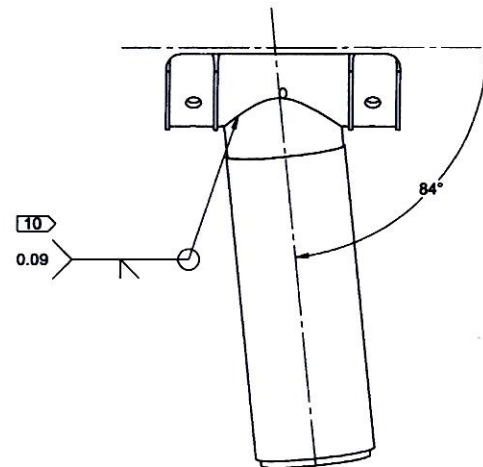
161880

OK

ITEM	QTY-041W	P/N	DESCRIPTION
	X	D5149-041W	FWD STEP BASE WELDMENT
1	1	D5149-1	FWD STEP BASE
2	1	D5149-3	FWD STEP
3	1	D5149-5	STEP CAP



D5149-041W FWD STEP BASE WELDMENT



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. *163380 MWS*
170703

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.67 lbs
- 8) WELDING PER DART QSI 004
- 9) APPLY BLACK ANTI-SKID PAINT TO STEP TUBE, ALL AROUND PER DART QSI 005 4.4
- 10) ALIGN D5149-3 FWD STEP WITH EDGE OF ALIGNMENT HOLES IN D5149-1 FWD STEP BASE PRIOR TO WELDING

RELEASED
2015-11-04

APPROVED

DESIGN	DB	DART AEROSPACE LTD	
DRAWN	AP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	DB	DRAWING NO.	REV. D
MFG. APPR.	DD	D5149	SHEET 3 OF 11
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	STEP ASSEMBLY	NTS
DATE	15.10.20	COPYRIGHT © 2014 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD			

DQA:

Date: 17-10-31



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date: OCT 31 2017

Work Order update only ☐

Work Order: <u>163380</u> Part No. <u>DS149-041W</u> NCR No. <u>17-6657</u>		DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☒</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☒	Composite ☐	Supplier ☐																																															
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Description Work Order Deviation				Disposition																																																																			
<u>DS149-3 angle was outside tolerance</u> <u>R.C. step move off during welding.</u> <u>↳ setup part not secure before welding.</u>				<u>scrap destroy</u> <u>replace.</u>																																																																			
				Completed By <u>DYC</u> <u>17/08/10</u> Lead hand / Supervisor Approval Verification DAS 9 9-89 17-07-25 QC / QA Coordinator Approval DAS 9 9-89 17-07-25																																																																			
Root Cause <table style="width:100%;"> <tr><td>Environment ☐</td><td>No Re-verification ☐</td></tr> <tr><td>Design ☐</td><td>Operator ☐</td></tr> <tr><td>Doc/Data ☐</td><td>Offset/Setup ☒</td></tr> <tr><td>Equip/Tooling ☐</td><td>Supplier ☐</td></tr> <tr><td>Handling/Pre ☐</td><td>Training ☐</td></tr> <tr><td>Material ☐</td><td>Use for Testing ☐</td></tr> <tr><td>Internal Transport ☐</td><td>Poor Information ☐</td></tr> <tr><td>Tribal Knowledge ☐</td><td>Rushing ☐</td></tr> <tr><td>LOA ☐</td><td>Product Improvement ☐</td></tr> <tr><td>Substation ☐</td><td>Process Improvement ☐</td></tr> <tr><td>Past Expiry Date ☐</td><td>Manufacturing Process ☐</td></tr> <tr><td>Misidentified ☐</td><td>Past Due ☐</td></tr> </table>		Environment ☐	No Re-verification ☐	Design ☐	Operator ☐	Doc/Data ☐	Offset/Setup ☒	Equip/Tooling ☐	Supplier ☐	Handling/Pre ☐	Training ☐	Material ☐	Use for Testing ☐	Internal Transport ☐	Poor Information ☐	Tribal Knowledge ☐	Rushing ☐	LOA ☐	Product Improvement ☐	Substation ☐	Process Improvement ☐	Past Expiry Date ☐	Manufacturing Process ☐	Misidentified ☐	Past Due ☐	FAULT CATEGORY <table style="width:100%;"> <tr><td>Pressure/Forced ☐</td><td>Temperature/Cure ☐</td><td>Power Loss/Surge ☐</td><td>Positioned Wrong ☐</td></tr> <tr><td>Bending ☐</td><td>Set-up ☐</td><td>Folio/Program ☐</td><td>Outside Dimensions ☐</td></tr> <tr><td>Centre Not Concentric ☐</td><td>BOM/Route ☐</td><td>Grain ☐</td><td>Over/Under tolerance ☒</td></tr> <tr><td>Cracks ☐</td><td>Broken/Damage/Defect ☐</td><td>Weld ☐</td><td>Part Incorrect ☐</td></tr> <tr><td>Crimp/Kink/Ripple/Wave ☐</td><td>Inspection Incomplete/Unqualified ☐</td><td>Wrong Stock Pulled ☐</td><td>Part Lost/Missing ☐</td></tr> <tr><td>Cuffs ☐</td><td>Contamination ☐</td><td>Out of Sequence ☐</td><td>Part Moved ☐</td></tr> <tr><td>Crushing ☐</td><td>Countersink ☐</td><td>Off-set ☐</td><td>Drawing ☐</td></tr> <tr><td>Heat Treat ☐</td><td>Cut Too Short ☐</td><td>Mislabeled ☐</td><td>Finish ☐</td></tr> <tr><td>Wave/Twist in Tube ☐</td><td>Instructions Incomplete/Unclear ☐</td><td>Fit/Function ☐</td><td>Misread ☐</td></tr> <tr><td>Marks/Chatter ☐</td><td>Drill Holes ☐</td><td>Misaligned/off center ☐</td><td>Turning Sequence ☐</td></tr> </table>						Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☒	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
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